Reply to Office Action of April 1, 2003

Amendments to the Specification:

Please amend the specification as follows:

Page one prior to line two insert the heading and subheading:

-- BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION--

Please replace the paragraph beginning at page 1, line 2, with the following rewritten paragraph:

The present invention concerns a feeding apparatus for cellulosic material in which a screw feeds and compresses the material towards a counterstay between a screw shaft and screw housing for the build-up of a pressure tight material plug.

Page one prior to line 5 insert the heading:

--BRIEF DESCRIPTION OF THE RELATED ART--

Page 2, prior to line 1 insert the heading:

--OBJECT OF THE INVENTION--

Page 2, prior to line 6 insert the heading:

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--BRIEF DESCRIPTION OF THE DRAWINGS--

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Page 2, prior to line 13, insert the heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENT--

Please replace the paragraph beginning at line 13 of page 2 and continuing through to page 3 with a new paragraph as follows:

The apparatus comprises a connection piece or inlet 10 which, by

a flange 12, is pressuretight connected in a pressure tight

manner to the outlet of a stream separator, for example of the type shown in the Swedish patent 9101342-5 (corresponding to US patent 5148998), so that the material, such as pulp, is fed to the connection piece inlet 10 when the steam generated during the refining has been separated in the steam separator and under pressure passed to different uses in the process, such as heating of water. In order to prevent decreasing a decrease or vanishing loss of the pressure of the steam, the pulp must, after

the steam separating step, be fed out in an a pressure[-]tight

way. For this, the pulp falls down into a sealed house housing

14, provided under the connection piece inlet 10, in which house

housing 14 a transporter screw 16 with flights 18 is provided on

a shaft 20 is journalled. The shaft 20 has a conically



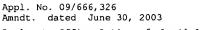
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increasing peripheral portion having an increasing diameter towards the outlet end of the screw 16 housing, i.e. in the direction of the feeding of the material transported by the screw 16 to direct the material out towards the inner periphery of the house housing. At the outlet end, the shaft 20 is further provided with a flange 22, which has a conically increasing diameter in said the feeding direction. Around this flange 22 is a plug pipe 24 is provided, which is movably journalled in to the house housing 14 and which at one end is displaceably journalled around the outside of the house housing, so that the plug pipe may be displaced towards and away from the flange 22 for forming, together with this; an outlet gap 28 for the material. displacement is carried out by operating rods 30 connected to the plug pipe 24 and which are operated by suitable drive motors (not shown) to displace the plug pipe in a preferred direction and in this way change the size of the gap 28. The plug pipe 24 thus forms an adjustable throttle to central passage of material through the outlet opening 28.

Please replace the paragraph beginning at line 16 of page 3 and continuing through to page 4 with a new paragraph as follows:

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The operating rods 30 are controlled and mounted in openings in a



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bearing house 42 for the shaft of the screw. In the gap 28 a controllable counter pressure is developed against the feeding of the material occurs in this way, which makes provisions for forming causes the formation of a material plug 40 before the flange 22, which material plug 40 seals the interior of the house housing 14 from the space 34 outside of the flange 22. outside of the flange 22, seen in the direction of the feeding, wings 32 are provided, which are provided to cut up the annular material plug which is fed out of the gap 28 to space 34, so that the material falls down to the bottom of the space 34. bottom is open downwards and provided with a connection piece 36 intended for connection to any means for further transport of the material. A distance from and opposite the outlet gap 28 the space 34 is limited by a sealing wall 38, which sealingly surrounds an extension 44 of the shaft 20, which shaft extension 44 is journalled in the gearing house 42 and is provided to be connected to a drive motor (not shown) for the screw 16. space 34 has a connection piece 46 at the top, which is provided with an inspection cover 48.

Please replace the paragraph beginning at page 4, line 5, with the following rewritten paragraph:

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Appl. No. 09/666,326

Amndt. dated June 30, 2003

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The described apparatus works in the following way: which comes from the steam separator (not shown) to the inlet 12, falls down into and is fed by the screw 16 towards the outlet of the house housing 14, i.e. in the left hand direction in Fig. 1, and will be forced by the conically increasing axle 20 towards the inner periphery of the house housing 14 so that a pulp plug 40 will be formed before the pulp outlet, which is limited by the flange 22 provided on the axle 20. To control the discharge of the pulp plug 40 and thus retaining the a pressure tight function of the plug 40, the size of the outlet opening 28 is controlled according to the invention by means of the, at the inner periphery of the house 14, journalled plug pipe 24, of which the motion is controlled by the operating rods 30. The annular pulp plug discharged through the opening 28 will, if it is not falling apart by itself, be beaten apart by wings 32 provided on the outside of the opening 28 and rotating with the shaft 20. pulp then falls down into the lower portion of the house 34 and is fed out of the outlet 36 for further processing.

Please replace the paragraph beginning at page 4, line 23 and continuing to page 5, with the following rewritten paragraph:

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As is evident from the shown embodiment, the shaft 20 of the screw 16 is journalled with its shaft extension 44 in the bearing house housing 42, on the side of the house housing 14 of the screw 16 where there is atmospheric pressure. In this way there is not any need for pressure tight pack packing boxes in the bearing house housing, which simplifies and reduces the costs for maintainance and operation of the apparatus. By the fact that the bearing 42 of the screw 16 is closest to the end of the screw 16 where the pulp plug 40 is formed unstability of the screw 16 is prevented to a great extent so that better precision is achieved when setting the size of the outlet opening.

